



Mapping climate change vulnerabilities to infectious diseases in Europe

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Abstract:

Background: The incidence, outbreak frequency, and distribution of many infectious diseases are generally expected to change as a consequence of climate change, yet there is limited regional information available to guide decision-making. **Objective:** To survey government officials designated as "Competent Bodies for Scientific Advice" concerning infectious diseases about the degree to which they are concerned about potential effects of climate change on infectious diseases, and their perception of institutional capacities, in their respective country. **Methods:** In 2007 and 2009/2010, national infectious disease experts from 30 European Economic Area countries were surveyed about recent and projected infectious disease patterns in relation to climate change in their country and the national capacity to cope with them. **Results:** The large majority of respondents agreed that climate change would affect vectorborne (86% of country representatives); foodborne (70%); waterborne (68%); and rodentborne (68%) diseases in their country. In addition, most indicated that institutional improvements are needed for: ongoing surveillance programs (83%); collaboration with the veterinary sector (69%); management of animal disease outbreaks (66%); national monitoring and control of climate-sensitive infectious diseases (64%); health services during an infectious disease outbreak (61%); and diagnostic support during an epidemic (54%). **Conclusions:** Expert responses were generally consistent with the peer-reviewed literature regarding the relationship between climate change and vector- and waterborne diseases, but were less so for foodborne diseases. Shortcomings in institutional capacity to manage climate change vulnerability, identified in this assessment, should be addressed with impact, vulnerability and adaptation assessments.

Source: <http://dx.doi.org/10.1289/ehp.1103805>

Resource Description

Communication: ☒

resource focus on research or methods on how to communicate or frame issues on climate change; surveys of attitudes, knowledge, beliefs about climate change

A focus of content

Communication Audience: ☒

audience to whom the resource is directed

Policymaker

Exposure : ☒

Climate Change and Human Health Literature Portal

weather or climate related pathway by which climate change affects health

Ecosystem Changes, Food/Water Quality

Food/Water Quality: Pathogen

Geographic Feature: ☒

resource focuses on specific type of geography

None or Unspecified

Geographic Location: ☒

resource focuses on specific location

Non-United States

Non-United States: Europe

Health Impact: ☒

specification of health effect or disease related to climate change exposure

Infectious Disease

Infectious Disease: Foodborne/Waterborne Disease, Vectorborne Disease, Zoonotic Disease

Foodborne/Waterborne Disease: General Foodborne/Waterborne Disease

Vectorborne Disease: General Vectorborne

Zoonotic Disease: General Zoonotic Disease

Mitigation/Adaptation: ☒

mitigation or adaptation strategy is a focus of resource

Adaptation

Resource Type: ☒

format or standard characteristic of resource

Research Article

Timescale: ☒

time period studied

Time Scale Unspecified